## **Abstract**

A fluid mixing device, for the continuous mixing of two or more fluids, having a mixing chamber which has fluid contact surfaces defining an internal chamber region, a fluid inlet, for feeding fluid into the chamber region, a fluid outlet, for feeding fluid out of the chamber region, and a fluid mixer within the chamber region which is capable of inducing mixing of two or more fluids within a mixing region. The mixing chamber is configured so that the dead volume within the chamber region is filled in such a way that the mixing region corresponds to the chamber region. A fluid inlet valve for use in the fluid mixing device has entrance and exit aperture sealing means which are adapted to allow passage of fluid respectively into and out of a body portion of the valve, according to a specified pressure differential between the pressure externally of the entrance aperture and the pressure externally of the exit aperture.